



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,418	12/03/2003	John I. Garney	ITL.1047US (P17449)	5582
21906	7590	06/09/2006	EXAMINER	
TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631			SCHLIE, PAUL W	
			ART UNIT	PAPER NUMBER
			2186	

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/726,418	Applicant(s) GARNEY, JOHN I.	
	Examiner Paul W. Schlie	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-33 have been examined.

Response to Arguments

2. Applicant's arguments filed 4/28/06 with respect to the objection to the disclosure have been fully considered and are persuasive and has been withdrawn; as although the disclosure is considered less than ideal (as no clear distinction is made within the disclosure or claims between a first disk driver being component of a BIOS being implicitly utilized load a second driver being a component of an operating system and utilizing a disk cache not utilized by said first disk driver once loaded), it is considered sufficient to enable the review the applicant's claimed invention.
3. Applicant's remaining arguments filed 4/28/06 have been fully considered but they are not persuasive and/or moot in view of their correspondingly clarified rejection.

As per the requirement for revised drawings, as the disclosed call/interrupt "stack" is considered a critical data structure requiring access/manipulation (see page 7 line 27 through page 9 line 24, and for example claim 10) to enable the disclosed and claimed invention, a corresponding diagrammatic representation of it's logical content and/or transformation (as required by critical element 215 within figure 2 and elements 420-460 within figure 4) is considered necessary to properly understand the claimed invention's implementation; and is thereby sustained.

As per the rejection of the claims under 102(a) or in the alternative 103(a), their rejection is considered justifiable and thereby sustained; as all the elements of the claimed invention are considered as being implicit in that acknowledged by the applicant

Art Unit: 2186

and/or obvious to one of ordinary skill in the art in combination with that otherwise well known by the same.

However with respect to the applicant's disclosed invention, a claim minimally comprising the use of a log comprising a queue writes performed by a first disk driver between successive accesses to a write-back cache being utilized by a second disk driver and not utilized by said first disk driver, to maintain said write-back cache's coherence with data stored on a disk drive independently accessible by both said first disk driver and second disk driver, would be considered to clearly and distinctly (as per MPEP 2172.01 [R-1] "Unclaimed Essential Matter") constitute a patentable claim over prior art cited, and would be duly considered in an after final amendment if presented.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show for example the structure and manipulation of the call/interrupt "stack" as referenced within figure 4, and considered critical to the proper understanding of the disclosed and claimed invention. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheets should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and

Art Unit: 2186

where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-33 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Garney (US App. 10/726,418).

As per independent claims 1, 13, 20 and 27, Garney acknowledges within the "Background" section of the application, that coherency must be preserved in a system

Art Unit: 2186

that may cache data otherwise stored data, and that such cached data may be flushed thereby rendering the two equivalent (i.e. coherent), as being common knowledge to those of ordinary skill in the art; thereby correspondingly logically inherent and rendering obvious that upon the circumstance (such as upon system start-up, shut-down, and/or upon a crash, as further so acknowledged) where said cache of such data may not be coherent with said otherwise stored data and that otherwise stored data may be otherwise accessed directly bypassing said cache, said cached data may be flushed to warrant coherence between the two. Where as further acknowledged by Garney, that a system's BIOS may access said otherwise stored data directly; it is correspondingly obvious to one of ordinary skill in the art that any such access (as may be accomplished by intercepting such a call) must correspondingly flush such cached data prior to accessing said otherwise stored data for it to be warranted to be coherent if not otherwise accessed through said cache (and by clear logical analogy, although neither seemingly taught or acknowledged by Garney, any such direct modification of said otherwise stored data otherwise bypassing said cache, must correspondingly warrant that said cached data remain coherent with said stored data by either requiring the coherent removal or updating of said cached data).

As per claims 2-12, 14-19, 21-26 and 28-33 being dependent on claim 1, 13, 20, 27, or correspondingly dependent claim inclusively, all cited limitations not otherwise explicitly addressed above, are correspondingly considered obviously inherent in that taught, clearly obvious to one of ordinary skill in the art at the time of the claimed invention, and/or insufficient to patentably distinguish over prior art.

Art Unit: 2186

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PIERRE BATAILLE
PRIMARY EXAMINER

6/6/06